

Patent Abstracts of Japan

PUBLICATION NUMBER : 2003227735
PUBLICATION DATE : 15-08-03

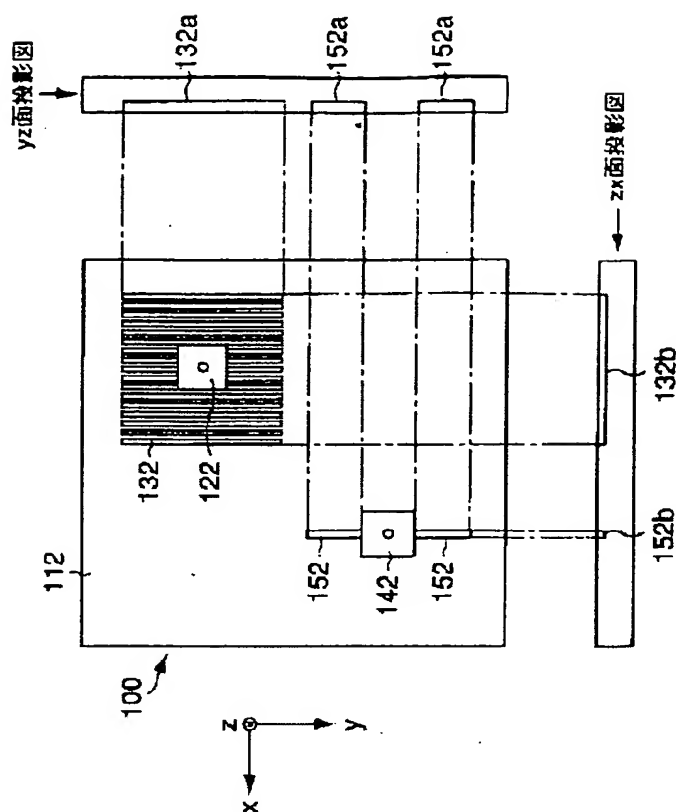
APPLICATION DATE : 31-01-02
APPLICATION NUMBER : 2002024482

APPLICANT : OLYMPUS OPTICAL CO LTD;

INVENTOR : ITO TAKESHI;

INT.CL. : G01D 5/38 G01B 11/00 G01D 5/30
H01L 31/12

TITLE : OPTICAL ENCODER AND ITS SENSOR HEAD



ABSTRACT : PROBLEM TO BE SOLVED: To provide a sensor head capable of being applied to both two types of typical scales generally used for optical encoders.

SOLUTION: The sensor head 100 is provided with a light source 122 for detecting the amount of movement and for irradiating a pattern for detecting the amount of movement of a scale with a coherent light beam, a light source 142 for detecting a reference location and for irradiating the pattern for detecting the reference location of the scale with a light beam, an optical detector 132 for detecting the amount of movement and for detecting light reflected at the pattern 12 for detecting the amount of movement, a pair of optical detectors 152 for detecting the reference location and for detecting light reflected at a pattern 14 for detecting the reference location, and a flat-plate-shaped substrate 112 for supporting these elements. In the optical detector 132 for detecting the amount of movement and the optical detectors 152 for detecting the reference location, a yz plane projected image 132a and yz plane projected images 152a are separated from one another, and a zx plane projected image 132b and a zx plane projected image 152b are separated from each other.

COPYRIGHT: (C)2003,JPO